CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-05/829e/CEMENT/2015-16 Date: 04.05.2015

TEST REPORT ON CEMENT

*** CUSTOMER**	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
***AGENCY**	:	**Technical Manager (W),** KRIDL, Bangalore.
***NAME OF THE WORK**	:	Desilting and resetting of BS slabs near Nagabhushan House to Maraka House Old Mallasandra in ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	:	BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 02.05.2015
SAMPLE ID	:	Cement
SAMPLE RECEIVED ON	:	02.05.2015
PERIOD OF TESTING	:	02.05.2015 to 04.05.2015

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	30.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	180 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	465 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

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⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

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VISHWANATH .C
Quality Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.

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Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-05/829e/SAND-Gradation/2015-16 : 04.05.2015

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

* **Customer** : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

* **Agency** : **Technical Manager (W),** KRIDL, Bangalore.

* **Name of Work** : Desilting and resetting of BS slabs near Nagabhushan House to Maraka House Old Mallasandra in ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 02.05.2015

Technical Reference : IS : 2386 Part 1 - 1963 RA-2007

Sample ID : Fine Aggregates

Sample Received on : 02.05.2015

Date of Testing : 04.05.2015

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	95.10	90-100	90-100	90-100	95-100
2.36	79.80	60-95	75-100	85-100	95-100
1.18	58.30	30-70	55-90	75-100	90-100
600 Micron	40.10	15-34	35-59	60-79	80-100
300 Micron	13.40	5-20	8-30	12-40	15-50
150 Micron	2.10	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-II specific limits.

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AE W.13

VISHWANATH .C
Quality Manager

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T-2377

Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-05/829e/AGG/GR/2015-16 : 04.05.2015

TEST REPORT ON COARSE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

*** Agency** : **Technical Manager (W),** KRIDL, Bangalore.

*** Name of Work** : Desilting and resetting of BS slabs near Nagabhushan House to Maraka House Old Mallasandra in ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 02.05.2015

Technical Reference : IS : 2386 Part 1 -1963 RA-2007

Sample ID : Coarse Aggregates (40mm)

Sample Received on : 02.05.2015

Date of Testing : 04.05.2015

Total Wt. of Aggregates in gms= **10000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	96.22	95-100	85-100
20	50.30	30-70	0-20
10	13.18	10-35	0-5
4.75	1.72	0-5 *	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

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VISHWANATH .C
Quality Manager

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ಬಿ.ಬಿ.ಎಂ.ಪಿ ಪಶ್ಚಿಮ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ ರಸ್ತೆ, ರಾಜಾಜಿನಗರ, ಬೆಂಗಳೂರು

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T-2377

Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-05/829e/AGG/GR/2015-16 : 04.05.2015

TEST REPORT ON COARSE AGGREGATES

* **Customer**	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* **Agency**	: **Technical Manager (W),** KRIDL, Bangalore.
* **Name of Work**	: Desilting and resetting of BS slabs near Nagabhushan House to Maraka House Old Mallasandra in ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 02.05.2015
Technical Reference	: IS : 2386 Part 1 -1963 RA-2007
Sample ID	: Coarse Aggregates (20mm)
Sample Received on	: 02.05.2015
Date of Testing	: 04.05.2015

Total Wt. of Aggregates in gms= **5000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
40	100	100	100
20	96.10	95-100	85-100
10	30.32	25-55	0-20
4.75	4.38	0-10	0-5

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits

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VISHWANATH .C
Quality Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.

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T-2377

Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-05/829e/CC Solid Block/2015-16 : 08.05.2015

TEST REPORT ON CEMENT CONCRETE SOLID BLOCKS

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (W),** KRIDL, Bangalore.
* Name of the Work	: Desilting and resetting of BS slabs near Nagabhushan House to Maraka House Old Mallasandra in ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 02.05.2015
Sample Received on	: 02.05.2015
Date of Testing	: 08.05.2015
Size of Blocks	: 400mm x 150mm x 200mm
Cross Sectional Area	: 60000 mm^2
Technical Reference	: IS: 2185 (Part 1) - 2005
No. of Blocks Tested	: 08

Sl.No.	Block ID	Wt. in Kg	Failure load (KN)	Compressive strength (N/mm^2)	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	25.23	201.4	3.36	Minimum required Compressive Strength of Individual Units 3.20 N/mm^2
2	Block 2	24.19	204.6	3.41	
3	Block 3	26.37	203.7	3.40	
4	Block 4	24.52	202.8	3.38	
5	Block 5	25.98	201.6	3.36	
6	Block 6	26.48	203.5	3.39	
7	Block 7	25.19	204.9	3.42	
8	Block 8	24.84	202.4	3.37	

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VISHWANATH .C
Quality Manager

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Job No.: CTCE/BBMP/W.No.13/KRIDL/Precast Slab/2014-15

08.05.2015

PRECAST COVERING SLAB CONCRETE (CORE) TEST REPORT

Name of Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Name of the Agency	:	**Technical Manager (W),** KRIDL, Bangalore.
Name of work	:	Desilting and resetting of BS slabs near Nagabhushan House to Maraka House Old Mallasandra in ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 02.05.2015
No.of Sample Tested	:	03
Date of Testing	:	08.05.2015
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Grade of Concrete	:	M_{20}

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	81.00	0.401	2521.33	1.62	0.950	31.3	15.92	17.19	16.33	20.41
2	50.00	82.00	0.407	2527.85	1.64	0.960	31.7	16.14	17.43	16.73	20.92
3	50.00	83.00	0.413	2534.21	1.66	0.955	32.2	16.40	17.72	16.92	21.15

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AE W.13

VISHWANATH .C
Quality Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com

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Job No.: CTCE/BBMP/W.No.13/KRIDL/Precast Slab/2014-15

08.05.2015

PRECAST COVERING SLAB CONCRETE (CORE) TEST REPORT

Name of Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
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Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Grade of Concrete	:	M_{20}

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